

Title (en)
ULTRASOUND SUCTION SYSTEM

Title (de)
ULTRASCHALLSAUGVORRICHTUNG

Title (fr)
SYSTÈME D'ASPIRATION D'ULTRASON

Publication
EP 2508143 A1 20121010 (EN)

Application
EP 11795697 A 20110613

Priority
• US 35564610 P 20100617
• JP 2011063511 W 20110613

Abstract (en)
An ultrasound suction system applies an ultrasound driving signal generated by an ultrasound driving signal generating section onto an ultrasound generating section, transmits ultrasound vibration energy to a distal end portion via a vibration transmitting section, and, under observation by an observing section, fragments a treatment target living tissue with the ultrasound vibration energy, sucks fragmented living tissue pieces together with fluid supplied to a surface of the living tissue, and acquires by an image acquiring section an observed image in a state in which the ultrasound vibration energy is given. A control section controls output of the ultrasound driving signal on the basis of a result of comparison with a reference image.

IPC 8 full level
A61N 7/00 (2006.01); **A61B 17/00** (2006.01); **A61B 17/32** (2006.01); **A61B 19/00** (2006.01)

CPC (source: EP US)
A61B 17/320068 (2013.01 - EP US); **A61B 90/36** (2016.02 - EP US); **A61B 90/361** (2016.02 - EP US); **A61B 2017/00022** (2013.01 - EP US); **A61B 2017/00057** (2013.01 - EP US); **A61B 2017/00137** (2013.01 - EP US); **A61B 2017/00902** (2013.01 - EP US); **A61B 2017/320069** (2017.07 - EP US); **A61B 2017/32007** (2017.07 - EP US); **A61B 2090/364** (2016.02 - EP US); **A61B 2218/002** (2013.01 - EP US); **A61B 2218/007** (2013.01 - EP US)

Cited by
CN109946132A; WO2015038347A1; WO2022031417A1; US10117702B2; US10179022B2; USD847990S; US10398466B2; US10426507B2; US9848937B2; US10201382B2; US10265117B2; US10357303B2; US10441308B2; US10702329B2; US10842522B2; US10111699B2; US10117667B2; US10245064B2; US10524854B2; US9949788B2; US10194976B2; US10299810B2; US10335182B2; US10524872B2; US9610091B2; US10154852B2; US10463421B2; US10639092B2; US10881449B2; US9737358B2; US9795436B2; US10420579B2; US10485607B2; US10575892B2; US10595930B2; US10959806B2; US10314638B2; US10376305B2; US10524852B1; US10555769B2; US11266430B2; US9700333B2; US9808308B2; US10166060B2; US10285724B2; US10335183B2; US10441345B2; US10172669B2; US10245065B2; US10265094B2; US10342602B2; US10433866B2; US10433865B2; US10463887B2; US10888347B2; US9814514B2; US10194972B2; US10537352B2; US10751117B2; US10893883B2; US10092348B2; US10251664B2; US10299821B2; US10321950B2; US10537351B2; US9757186B2; US9872725B2; US10335614B2; US10456193B2; US11058447B2; US9707030B2; US10092310B2; US10130410B2; US10194973B2; US10595929B2; US10610286B2; US10624691B2; US10646269B2; US10687884B2; US11033322B2; US9737355B2; US9861428B2; US10226273B2; US10349999B2; US10441310B2; US10517627B2; US10543008B2; US9877776B2; US9913680B2; US10159524B2; US10278721B2; US10285723B2; US10420580B2; US10433900B2

Designated contracting state (EPC)
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US 2012116222 A1 20120510; CN 102762160 A 20121031; CN 102762160 B 20150304; EP 2508143 A1 20121010; EP 2508143 A4 20130109; EP 2508143 B1 20140226; JP 5006475 B2 20120822; JP WO2011158792 A1 20130819; WO 2011158792 A1 20111122

DOCDB simple family (application)
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